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09/914,573	08/31/2001	Yusuke Monobe	50023-149	9622

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EXAMINER

LAROSE, COLIN M

ART UNIT PAPER NUMBER

2623

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/914,573

**Applicant(s)**

MONOBE ET AL.

**Examiner**

Colin M. LaRose

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) 22-29 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6, 8-16 and 18-21 is/are rejected.  
7) ☒ Claim(s) 7 and 17 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0801.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-21) in the reply filed on 7 October 2004 is acknowledged.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 31 August 2001 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each reference listed that is not in the English language. It has been placed in the application file, but the information (i.e. the Tahenryou reference) referred to therein has not been considered.

### ***Specification***

3. A substitute specification including the claims is required pursuant to 37 CFR 1.125(a) because it appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of

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five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

#### ***Claim Objections***

4. The claims appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Correction of the claims to bring them in accordance with proper English is required.

#### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Computer programs per se are non-statutory. In order for a program claim to be permissible, it must contain instructions that are embodied in a tangible medium for performing the claimed program steps. Examples of acceptable language are:

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“A computer program embodied in a computer readable medium for performing the steps of ...”; or

“A computer readable medium storing a program for performing the steps of ...”

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 8 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 8 and 18, there is insufficient antecedent basis for “the specific ratio.”  
Correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-6, 9, 11-16, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,751,921 by Fujimoto.

Regarding claims 1, 11, and 21, Fujimoto discloses a processor, method, and computer program (figures 2 and 4) for:

dividing document images prepared by reading a paper document into a plurality of regions (step 406, figure 4; see also figures 5 and 6);

calculating per region a region average character size equivalent to an average size of characters in a region (column 7, line 33: “average value of the block” is the average character size of a segmented region) and a total average character size equivalent to an average size of characters in the entire regions (column 7, line 18: “average value of size of characters” is the average size of the characters in all the segmented text regions);

comparing each region average character size and extracting criteria that is the total character size multiplied by the extracting parameter (column 7, lines 4-35: the average value of each block is compared to a “distinction criteria,” which is the total average size of the characters multiplied by a magnification value; see also figure 8); and

extracting regions with the region average character size larger than the extracting criteria as a title region (column 7, lines 50-55: the regions that have an average character size that is larger than the distinction criteria, corresponding to e.g. “threshold level 3” in figure 8, are identified as title regions and are assigned special colors as shown in figure 9; other regions such as catchwords, author, etc. are also extracted based on the size of the characters; see also figures 10 and 31).

Regarding claims 2 and 12, Fujimoto discloses calculating the region average character size and the total average size based on an average height of characters (see column 7, lines 16-35: average height).

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Regarding claims 3 and 13, Fujimoto discloses calculating the region average character size and the total average size based on an average width of characters (see column 7, lines 16-35: average width may be used).

Regarding claims 4 and 14, Fujimoto discloses calculating the region average character size and the total average size based on an average area of characters (see column 7, lines 16-35: average area may be used).

Regarding claims 5 and 15, Fujimoto discloses calculating the extracting criteria on a plurality of levels by using the extracting parameters on a plurality of levels (see figure 8: plurality of “distinction criteria,” or threshold levels).

Regarding claims 6 and 16, Fujimoto discloses calculating the extracting criteria on a plurality of levels by using the extracting parameters on a plurality of levels and extracts each title region corresponding to each level attribute indicating the level of the extracting (figures 8 and 9: title regions on a plurality of levels are extracted).

Regarding claims 9 and 19, Fujimoto discloses correcting character strings of the extracted title regions (i.e. Fujimoto discloses correcting the color of the title region by assigning it a new color – figure 9).

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,751,921 by Fujimoto in view of U.S. Patent 5,825, 936 by Clarke et al. ("Clarke").

Regarding claims 8 and 18, Fujimoto is silent to calculating the average character size and the total average character size based on the claimed trim average method.

Clarke discloses an image analyzing device that utilizes adaptive criteria. In particular, Clarke discloses calculating an average value according to the trimmed mean method, whereby extreme values on both the low and the high end are discarded for purposes of calculating the mean value (see column 11, lines 39-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujimoto by Clarke to utilize trimmed average values, as claimed, rather than simple average values, as taught by Fujimoto, since Clarke teaches that the trimmed mean of a dataset is a conventional way to calculate a mean value and is a substantially equivalent method of calculating a mean value. The advantage lies in the fact that extreme values are discarded, so potential anomalies in the dataset do not effect the mean calculation.



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14. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,751,921 by Fujimoto.

Regarding claims 10 and 20, Fujimoto does not expressly disclose that the document is configured by a plurality of pages (i.e. Fujimoto discloses the scanning and processing of only one page of a document). However, at the time of the invention, those skilled in the art were well aware that documents comprising a plurality of pages are typically scanned as a group and image processing is carried out on each page. Official notice taken.

***Allowable Subject Matter***

15. Claims 7 and 17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 7 and 17, Fujimoto discloses that the extracting parameters are 0.9, 1.1, 1.5, etc. (see column 7, lines 21-28; see also figure 8). However, Fujimoto does not disclose how these parameters are determined.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,892,843 by Zhou et al.;

U.S. Patent 6,035,061 by Katsuyama et al.; and

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U.S. Patent 5,821,929 by Shimizu et al. all disclose similar methods for extracting a title from a document image.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colin M. LaRose whose telephone number is (703) 306-3489. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600 Customer Service Office whose telephone number is (703) 306-0377.

CML

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12 February 2005



**VIKKRAM BALI**  
**PRIMARY EXAMINER**